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Race, Immigration, and the U.S. Labor Market:

Contrasting the Outcomes of Foreign Born and Native Blacks

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Abstract

It is generally expected that immigrants do not fare as well as the native-born in the U.S. labor market. The literature also documents that Blacks experience lower labor market outcomes than Whites. This paper innovates by studying the interaction between race and immigration. The study compares the labor market outcomes of four racial groups in the United States (Whites, Blacks, Asians, and Hispanics) interacted with their foreign born status, using the Integrated Public Use Micro Data Series data for the 2000 Census. Among women and for labor market outcomes such as labor force participation, employment, and personal income, the foreign born are doing worse than the native born from the same racial background, with the exception of Blacks. Among men, for labor force participation and employment, foreign-born Blacks are doing better than native Blacks. The paper tests different possible explanations for this "reversal" of the advantage of natives over immigrants among Blacks. It considers citizenship, ability in English, age at and time since arrival in the United States, as well as neighborhood effects, but concludes that none of these channels explains or modifies the observed reversal.

This paper—a product of the Human Development and Public Services Team, Development Research Group—is part of a larger effort in the team to better understand the consequences of international migration. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at ddewalque@worldbank.org.

Race, Immigration, and the U.S. Labor Market: Contrasting the Outcomes of Foreign Born and Native Blacks

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I. Introduction

There is a large body of literature which documents and analyzes the labor market outcomes of Blacks in the US. Most of that literature compares Blacks with Whites (Neal 2008) and concludes that, on average, Blacks have less favorable labor market outcomes (Jaynes 1990, Juhn, Murphy and Brooks, 1991), even if Welch (2003) documents that the wages of Black men are catching up. The immigration literature focuses on the labor market experience of immigrants and measures how they compare with native born. For example, Smith (2003) analyzes generational mobility among Hispanic men; Hu (2000) and Hum and Simpson (2004) use panel data to revisit the comparison between foreign and native born; Blau and Kahn (2005) compare the assimilation of Mexican males and females; and Card, DiNardo and Estes (2000) compare the assimilation rates of successive immigration waves. Another part of the immigration literature investigates whether immigrant inflows affect the outcomes of native born (Card and DiNardo, 2000; Card 2001; Card 2005).

One of the objectives of this paper is to understand better the immigration and assimilation process in the US and see whether it differs by racial background. Very few studies consider race and immigration together. Borjas, Grogger and Hanson (2006) study the extent by which immigration affects the labor market outcomes of Blacks. The focus of this study is different: I analyze the role of race and immigrant status – and their interaction- in the US labor market. The analysis interacts immigrant status (foreign vs. native born) with racial/ethnic background and investigates four labor market outcomes: labor force participation, employment, employment conditional on being in the labor force and total yearly personal income (unconditional on labor force participation and employment). Butcher (1994) compared the outcomes of Black immigrants in the United States to those of native Blacks as well as native Whites and White immigrants. Her analysis, however, is limited to males and does not include other races and immigrant groups.

The most salient result of the analysis is a reversal of the traditional native/foreign born advantage among Blacks. Among women and for labor force participation, employment

and personal income, I find that foreign born are doing worse than native born from the same racial background, with the exception of Blacks. Among men, for labor force participation and employment, I also find that foreign born Blacks are doing better than native Blacks. The paper tests different possible explanations for that "reversal" of the advantage of natives on immigrants among Blacks. I consider citizenship, ability in English, age at and time since arrival in the US as well as neighborhood effects, but I conclude that none of these channels explain or modify the observed reversal.

While this reversal of the traditional native/foreign born advantage among Blacks is interesting to document in itself, it might also lead to some insights about the sources of racial differences, in particular the "Black-White" differences in the United States. For example, there is a debate on whether the "Black-White" gap is mainly driven by racial discrimination or by cultural factors. On the one hand, Bertrand and Mullainathan (2004) indicate that discrimination is still pervasive in the labor market since among similar resumes sent for job applications the ones with "Black" sounding names where less likely to get an interview and a job. On the other hand, recent work by Fryer and Levitt (2004b) study the potential role of cultural factors. Austen-Smith and Fryer (2005) and Fryer and Torelli (2005) also analyze the economics of "acting-white" in Black ghettos where studying and reading might be poorly perceived and education not rewarded.

Section II describes the data and the variables used. Section III contains the main results of the analysis, section IV tests whether that result is robust to composition effects and section V adds neighborhood effects to the analysis. Section VI discusses how the results could be interpreted and concludes.

II. Data

The analysis uses the Integrated Public use Micro Data Series (IPUMS) data for the 2000 Census in the United States. These data have two main advantages for the purpose of this paper. First, they contain good information about immigration (foreign born status, number of years in the US, country of origin) and labor market outcomes. In addition, the

sample size is very large (5% of the US population) which is useful since foreign born are a small minority among certain racial groups, especially Blacks. Similarly, native born Asians only represent a small percentage of the population, as reported in panel A of table 1. More conventional data sets would not have contained enough observations under those categories for a meaningful analysis.

The primary categories used in the analysis are a simple set of eight interactions between four racial groups (Whites, Blacks, Asians and Hispanics) and two immigrant statuses (native or foreign born). Panel A of table 1 reports how the sample is distributed across those eight categories, for males and females respectively.

I include in the analysis individuals aged 25-65 which I take to be the main age range relevant for labor force participation. The choice of that age range explains why the percentages by racial group in the population might be different than those usually perceived. For example, the fraction of Hispanics in the age range 25-65 is lower than their fraction in the entire population, since Hispanics are a relatively young group.

The race categories in the IPUMS data are as follows: White, Black, American Indian or Alaska Native, Chinese, Japanese, Other Asian or Pacific Islander, Other Race, Two Major Races and Three or More Major Races. I excluded from the analysis individuals who fell under the following categories: American Indian or Alaska Native, Other Race, Two Major Races and Three or More Major Races. I grouped under Asians those who described themselves as Chinese, Japanese or Other Asian or Pacific Islander. In addition to the race variable, the IPUMS data contain a distinct "Hispanic Origin" variable, containing the following categories: Not Hispanic, Mexican, Puerto Rican, Cuban, and Other. I grouped individuals defined as Mexican, Puerto Rican, Cuban or Other (Hispanic) under "Hispanic". I considered individuals who reported White under the race variable and Hispanic under the "Hispanic Origin" variable as Hispanics. By analogy to the exclusion of individuals declaring two or more races, I also excluded individuals who fell both under "Hispanic" and "Black" or "Asian". This constituted a very small proportion of the sample.

III. Main results

Table 2 includes the basic results from the analysis. For men and women separately, I analyze four dependent variables: labor force participation, employment, employment conditional on being in the labor force and total personal income. I do not focus mainly on wages, but also on the extensive margin of employment (Chandra 2000; Heckman, Lyons and Todd 2000; Johnson, Kitamura and Neal 2000; Neal 2004). For labor force participation and employment, the probit regressions (marginal effects shown) apply to individuals 25 to 65 and controls for five year age group dummies, region dummies (as defined in the IPUMS[1]), education (high school drop-outs omitted, high school graduates, some college and, college and above)[2], indicators for being married, disabled and in school, the number of children under age five in the household and the logarithm of total personal income earned by the other household members. The regressions and other estimations use the sampling weights provided with the IPUMS data.

I focus on the interaction terms between race and immigration and in particular on the comparison within each racial group between immigrant and native born, but I observe that the other controls yield expected coefficients[3]: labor force participation, employment and personal income increase with education. Currently attending school and being affected by a disability both have a negative impact on labor market outcomes[4]. Being married has a positive effect on labor market outcomes for men, but negative for women, except that women who have chosen to be in the labor force are more likely to be employed if married. The number of children under 5 in the household is negatively

[1] The nine census regions are New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountains and Pacific.
[2] The education distribution by race and immigration status is reported for each gender in the panel A of table 1.
[3] Table A1 in the appendix shows the same results without controlling for income earned by other family members.
[4] Being an inmate is also controlled for in the personal income regression, which is a linear regression. When entered in the labor force and employment regressions, which are probit regressions, the inmate dummy drops out as inmates are not in the labor force. This explains the slightly smaller sample sizes for those regressions, which, in effect, excludes inmates from the sample.

associated with labor market outcomes especially and more significantly for women, and with the exception of personal income, for men. Finally, the more other household members are earning, the less the individual is likely to participate in the labor force, to be employed and to earn, emphasizing that labor earnings are substitute within the household.

Among males, foreign born Blacks are more likely to participate in the labor force than native Blacks while the opposite holds for Whites (Whites born in the US are the omitted dummy) Asians and Hispanics. This is easier to visualize in figure 1 in which I have plotted the regression coefficients on the set of interacted race/immigration dummies together with their 95% confidence intervals. I prefer this way to report the results because, for the purpose of this analysis, what matters is not whether the coefficients are significantly different than zero, i.e. whether the group is faring better or worse than native Whites, but rather whether they are significantly different between natives and immigrants within the same racial group. I will therefore, in the remainder of this paper, focus my description of the results on the figures, but I will provide the underlying tables in the appendix.

For employment and employment conditional on being in the labor force, foreign born Blacks are doing better than native blacks. The same holds for Hispanics, but with smaller differences. Among Asians, foreign born do worse for employment and the difference by immigration status is not statistically different when considering employment conditional on labor force participation. White immigrants are less likely to be employed than Whites born in the US. For total personal income, among all races except Whites, immigrants earn less than their US born counterparts.

Among females, there is a very consistent and strong pattern**.** For labor force participation (illustrated in figure 2), employment, employment if in the labor force and total personal income, foreign born are consistently doing worse than native born from the same racial background[5], with the exception of Blacks**.** For Blacks, the ranking

[5] For employment conditional on being in the labor force for Asians, however, the difference between immigrants and natives is not significant.

between the native born and the foreign born interactions is systematically reversed. It is striking that black women born abroad are doing better than any other category for labor force participation and holding a job.

While it would be interesting to analyze and compare in detail each of the interaction terms, the most striking result is the reversal of the traditional native/foreign born ranking among Blacks. That reversal is very clear and consistent among females for all labor market outcomes. It is less consistent among males, but still, for labor force participation and employment, the difference between foreign born and natives is positive and always the largest.

The next two sections of the paper further investigates that result, focusing on labor force participation, first by looking for possible explanatory channels such as citizenship, ability in English, age at arrival in the US as well as time since arrival and then by controlling for potential neighborhood and local effects.

IV. Sample composition effects and possible channels

This section focuses on the fact that there might be large differences in the way the pool of immigrants is composed for each racial group. As indicated in panel B of table 1, the group of immigrants varies in the proportion of immigrants who became citizen, in their ability to speak English, by the length of their stay in the US or their age at arrival.

Citizenship might be an important asset on the labor markets and the proportion of foreign born who have become US citizens might vary by racial background. As reported in table 1 panel B, among White, Black and Asian foreign born, about 50 percent have obtained citizenship. That proportion is smaller (33.9% for women and 28.9% for men) among Hispanics. It would have been interesting to also take into account permanent residency (“green card”), but that information is not available in the US Census.

Figures 3 and 4[6] clearly show that being a citizen matters: among foreign born, those who became citizen are always more likely to participate in the labor force than those who are not. The only exception is among Hispanic men, among whom there is no statistical difference.

However, the most surprising results in figures 3 and 4, is that for both men and women, among Blacks, immigrants who are not citizen are more likely to participate in the labor force than native Blacks. For all other racial groups, non-citizens are always less likely to be in the labor force than native born.

The ability to speak English is also considered to be an important asset in the American labor market (see Bleakley and Chin, 2004, 2007 and 2008) and might vary across immigrant groups. In the census, individuals are asked about their ability to speak English. This variable has the disadvantage to be self-reported so that there might be a tendency to overestimate English ability. Native born are assumed to speak English. Among the foreign born, I have classified individuals reporting speaking English well and very well as speaking good English and those who reported not speaking English or speaking it, but not well, among those not speaking good English. Table 1 panel B indicates that the ability to speak English is close or above 90 percent for White and Black foreign born, close to 80 percent among Asians born outside the US, but only between 50 and 55 percent for Hispanics born abroad. The ability to speak English well is also, within each racial group, somewhat lower among women than among men.

Figures 5 and 6 clearly indicate that not speaking English well is a disadvantage for labor force participation, since foreign born with difficulties in English always do worse than individuals with a good command of the English language, with the exception of Hispanic males for whom the difference is not significant[7]. It is possible to imagine an explanation under which all immigrants would actually have an intrinsic advantage on the labor market (an "immigrant drive"), but that would be mitigated by their poorer ability to speak English. The fact that most foreign born Blacks speak good English could then

[6] See also table A2 columns 1 and 2 in the appendix for detailed results.
[7] See also table A2 columns 3 and 4 in the appendix for detailed results.

potentially explain why they are faring comparatively better. The point of figures 5 and 6 is to rule out that hypothetical explanation, by analyzing separately foreign born individuals according to their ability in English.

Both for males and females, Blacks born in the US are less likely to participate in the labor force than foreign born Blacks who speak English well. However, for all other racial groups, foreign born speaking English well are less likely to participate in the labor force than the individuals from the same race born in the US. This contrast suggests that the better performance of foreign born Blacks compared to native Blacks is not due to the fact that a larger proportion among them than among Asian and Hispanic foreign born speaks good English.

The age at arrival in the US might also have an impact on the labor market performance of immigrants. One would expect somebody who arrived as a young child to have had more time to "blend in" and to be better adapted to the US labor market than somebody who arrived as an adult. Table 1 panel B indicates that the majority of immigrants arrived as adults, aged 20 or older. However, Whites were slightly more likely to arrive as children and Hispanics slightly more likely to arrive between 10 and 20: the proportion of foreign born who arrived before age 10 is lower than 10 percent for Blacks, Asians and Hispanics, but just above 15 percent among Whites. Among Whites, Blacks and Asians, the proportion that arrived between age 10 and 19 is between 15 and 22.5 percent, but it is higher among Hispanics (27 percent among women and 32.3 percent among men).

Figures 7 and 8[8] suggest that, in general, arriving young in the United States provides an advantage in terms of labor market participation. Among Whites and Asians, for both males and females, the older the immigrant arrived in the United States, the less likely he or she is to participate in the labor force (not all differences are significant, especially among Asian males). Among Hispanic women, this advantage of migrating young is also confirmed, although, arriving as a child seem to give a slight advantage compared to being native born. There is no strong pattern for age at arrival among Hispanic males. Among Blacks, the results are quite different and there does not seem to be an advantage

[8] See also table A3 in the appendix for detailed results.

of arriving young: even though some coefficients are estimated with large confidence intervals, the general tendency seems to be for labor force participation to increase as the individual arrived older. It is also the case, for both Black males and females that individuals who arrived as adults are more likely to participate in the labor force than those who were born in the US. This is in striking contrast with all other racial groups. Among males, it also seems that the younger the Black migrants arrived, the more their labor force participation rates resemble that of native Blacks.

Time since arrival in the US, independently of age at arrival, might also affect the labor market outcomes of immigrants. The longer an immigrant has been in the US, the better he could have adapted to the demands and specificities of the American labor market[9]. Table 1 panel B indicates that between 30 and 40 percent of all immigrants arrived during the last 10 years. The larger fraction of White immigrants who arrived more than 20 years ago (above 45 percent compared to percentages around 30 percent for the other racial groups) suggests that this is a less recent immigration wave.

Figures 9 and 10[10] confirm that, in general, the more recent his or her arrival, the less likely the immigrant is to participate in the labor force. Among males and females, for all racial groups, recent immigrants are less likely to participate than immigrants who stayed in the US for a longer period. But it is in the comparisons with native born that the contrast across racial groups is stronger. For males and females, independent of their length of stay in the US, foreign born Blacks are more likely to be part of the labor force than native born blacks[11] . Among other racial groups, only those immigrants who arrived more than 20 years ago are, in certain cases, especially for males, equally or more likely to participate in the labor force (equally for Asian males, slightly more for White males and for Hispanics of both gender), but, in all other cases, and certainly for all those who arrived less than 21 years ago, immigrants are less likely to be in the labor force than native born of the same racial group.

[9] Kim (2008), however, concludes that there is limited convergence or narrowing of the foreign-native gap in terms of wages.
[10] See also table A4 in the appendix for detailed results.
[11] Notice, however, that, among males, the confidence intervals for native Blacks and Black immigrants who arrived less than 11 years ago are overlapping.

The available data do not allow distinguishing “time since arrival” for native born, i.e. whether the native born are second or third generation immigrants or whether their ancestors arrived in the US a long time ago. Asian and Hispanic natives are probably more likely to be second or third generation, and therefore more comparable to foreign born, while Black and White natives are more likely to come from families established for a longer time in the US.

The analysis illustrated in figures 3 to 10 suggests that the main result of this paper - the reversal of the traditional advantage of native vs. foreign born ranking among Blacks – is not driven by differences in citizenship, ability to speak English, age at arrival or time since arrival in the composition of the pool of immigrants. The next section focuses on neighborhood effects as potential factors explaining that result.

V. Neighborhood effects

The regressions used in the analysis so far only include regional indicators for the nine main regions in the US census. This is only a crude way to control for local conditions and neighborhood effects. Labor market outcomes might be affected by local economic conditions and by the composition of the neighborhoods. For example, Cutler and Glaeser (1997) document the negative impact of segregation among Blacks and Card and Rothstein (2007) show that the Black-White Test Score Gap is larger in highly segregated neighborhoods.

I first control for the racial composition of the Public Use Micro Data Area (PUMA) in which the household is located. PUMAs are the smallest level of geographical area available in the Public Use Micro Data of the Census. They generally follow the boundaries of county groups, single counties, or census-defined "places" if these areas exceed 200,000 residents; they are divided into as many PUMAs of 100,000+ residents as possible. None of the PUMAs cross state lines.

In table A5, I control for the average race composition of the PUMA. Compared to the proportion of Asians (the residual category), the proportion of Whites in the PUMA has a negative impact on labor force participation, for both men and women. The negative effect on labor force participation is stronger for the proportion of Blacks and Hispanic in the PUMA.

However, controlling for the average race composition of the PUMA does not affect the main result of the paper, as illustrated in figures 11 and 12 and reported in table A5: for both men and women, foreign born of all race groups, except Blacks, are less likely to be in the labor force than native born from the same racial groups. Among Blacks, that relationship is reversed as foreign born are more likely to participate in the labor force than natives.

While it would have been interesting to include PUMA fixed effects in the regressions, this is computationally very heavy given the number of PUMAs and the size of the samples. Instead, table A6 and figures 13 and 14 propose results from regressions in which cells have been created within each PUMA for each combination of age group (8 groups), education group (4 groups) and racial/immigration background (8 groups) and where the dependent variable (labor force participation) and the remaining control variables have been averaged for each cell. There are therefore 256 cells per PUMA.

The regression is of the form:

$$\text{Labor force participation}_{\text{PUMA, educ, age, race/immigr}} =$$
$$\alpha + \beta X_{\text{PUMA, educ, age, race/immigr}} + \gamma \text{Education} + \delta \text{Age Group} + \theta \text{Race/Immig} + \lambda \text{ PUMA} + \varepsilon.$$

The unit of observation is the cell defined at the level of the PUMA for each combination of age group, racial/immigration group and education group. The dependent variable is the average labor participation in the cell. The regressors are indicators for each PUMA, education group, racial/immigration group and each group as well as the average at the cell level of the other X variables: marital status, number of children under age 5, the

logarithm of income of other family members, disability, school enrollment and inmate status.

Using these cell level regressions to account for PUMA fixed effects does not affect the main result of the paper, as illustrated in figures 13 and 14 and reported in table A6: for both men and women, foreign born of all race groups, except Blacks, are less likely to be in the labor force than native born from the same racial groups[12]. Among Blacks, that relationship is reversed as foreign born are more likely to participate in the labor force than natives.

VI. Discussion and conclusion

The starting point of this paper is the expectation that foreign-born individuals are disadvantaged on the labor market compared to natives. The results from the analysis show that this hypothesis is generally confirmed for all racial groups, except for Blacks, among whom foreign born have better labor market outcomes than natives. That reversal is very clear and consistent among females for all labor market outcomes. It is less consistent among males, but still, for labor force participation and employment, the difference between foreign born and natives is positive and always the largest among Blacks. This result survives several robustness checks taking into account the composition of the sample of immigrants by citizenship, ability in English and age at arrival and time spent in the US. It is also robust to more disaggregated controls for local effects.

The immigration literature or the literature focusing on race rarely investigates explicitly the interaction between race and immigration. Most of the papers focus on one of the two aspects, or focus on the difference between immigrants and natives within one racial group. For example, they study how Hispanic immigrants catch-up with Whites or with native Hispanics (Smith 2003, Blau and Kahn 2005).

[12] For males, the difference in labor force participation rate is not significant between native and foreign born Hispanics.

One of the contributions of this paper is to investigate explicitly the interaction between race and immigration and to isolate the fact that foreign born Blacks have better labor market outcomes than native Blacks, while the opposite tends to be true for the three other racial groups.

While this result survives several robustness checks, interpreting it is more difficult. It could be due to unobservable characteristics among Black immigrants or among Black natives. It is also interesting to consider how it could be driven by discrimination or by a negative impact of immigration on labor market outcomes among Blacks, as suggested by Borjas, Grogger and Hanson (2006).

An example of unobservable characteristic among Black immigrants would be that they are especially motivated and selected since immigration is a selection process or that they can rely on strong support networks. Table 3 indicates the main countries of origin of Black immigrants. More than 70% of them come from the Caribbean and Latin America, with the largest groups coming from Jamaica (26%), Haiti (19.3%), Trinidad (7.2%) and Guyana (4.7%). More than 25% migrated from Africa with Nigeria (6.8%), Ghana (3.4%) and Ethiopia (3%) being the countries sending the largest share of migrants. It might be the case that migrants from those countries benefit from particularly strong support networks. The census data do not allow me to test that hypothesis; however it seems that immigrants from other races, like Asians and Hispanic also have strong networks. Similarly, if there is an unobservable trait like the “immigrant drive”, that effect should also be present for immigrants from other races.

Figures 15 and 16 investigate whether the region of origin of the foreign born Blacks makes a difference. I have divided them in three subgroups according to their birthplace: those born in Latin America or the Caribbean (LAC), those born in Africa and those born elsewhere, a smaller group essentially made of individuals born in Canada or the United Kingdom. The results, for both males and females, indicate that the advantage in labor force participation of foreign born Blacks compared to native Blacks is strongest among those born in Latin America or the Caribbean. The point estimates for Blacks born in

Africa are also higher, for both genders, than those for native Blacks, but there is a small overlap in the confidence intervals around the estimates. Blacks born overseas but not in Latin America and the Caribbean or Africa constitute a very small group and the confidence interval around their coefficient is very wide, so that no conclusion can be made. Overall, it seems that the reversal of the gradient between native and foreign born among Blacks is stronger for those born in Latin America or the Caribbean, but that it is also present among those born in Africa, especially if one compares with the three other racial groups among which immigrants are always significantly less likely to participate in the labor force than natives.

Examples of unobservable characteristics among Black natives might be the legacy of slavery and past discriminations or a ghetto culture or the quality of education. It is important to note that among all generations of migrants into the US, African slaves and their descendants are the only ones who arrived in the US through forced migration. Since voluntary immigration is a selection process, this might have had an impact in addition to the long-term effects of violence and exploitation. Notice however that, even though slavery in the Caribbean and South America might have taken different forms, a substantial fraction of Black foreign born who migrated from those regions might also have been descendants of slaves. Similarly and while it was probably very different than the Jim Crow area in the United States, immigrants from Africa and the Caribbean and their ancestors might also have encountered racial discrimination in their country of origin, at least until the decolonization era.

All results in this paper are from regressions in which educational achievement is controlled for. In order to ascertain at which education level the reversal of the usual advantage of native born is present, table 4 investigates how the relationship between foreign and native born is characterized within each racial group, separately for each education category. The education distribution by race and immigration status is reported for each gender in panel A of table 1. For both males and females, I divide the sample into the four education groups used as controls in the previous regressions: less than high school, high school graduates, some college and college and above. The regressions in table 4 are otherwise identical as in table 2, but only the coefficients on the interaction

between race and foreign born status are shown. It is interesting to note that, for both males and females and within each racial group except White women, among the less educated group foreign born are more likely to participate in the labor force than native born[13]. However, it is among Blacks, that the difference in favor of foreign born is the largest and always statistically significant. At the other end of the education distribution, among college graduates, the point estimates always indicate that native born are more likely to participate in the labor force, for both gender. However, that difference is the smallest and is not significant among Blacks.

Among all racial groups, except Blacks, native born are already better-off in terms of labor force participation than foreign born among high school graduates. Among Blacks, it is only among the college graduates, that native born are more likely to participate than foreign born, but the difference is relatively small and not significant. The general tendency is for the native born to improve upon the foreign born as one progresses through the education distribution, but among Blacks, the native born are at a stronger disadvantage among less educated and that disadvantage persists longer across the education categories. While the reversal of the usual advantage of native born among Blacks is not constant across all education categories, table 4 also reflects a relative disadvantage of native Blacks vis-à-vis foreign born Blacks, when contrasted with other racial groups, at all levels of education.

I could only control for education as measured by educational achievement and type of degree obtained, and not for the quality of education. Fryer and Levitt (2004a) suggest that average school quality is lower for Blacks in the US. While the available data do not allow controlling for school quality, it is important to note that the relevant comparison would not be so much between the schools attended by Blacks and by other racial groups in the US, but also with schools in the Caribbean and Africa in which some of the foreign born Blacks have received part of their education (on average more than 60% of foreign born arrived after age 20, see table 1 panel B). Such a comparison is beyond the scope of this paper.

[13] The difference is not significant, however, among White and Asian men and Asian and Hispanic women.

The results from this analysis do not exclude the existence of current discrimination towards Blacks. However, if all racial differences were due to current discrimination, one would not expect to see the reversal of the native/foreign born relationship for Blacks, unless the labor market discriminates only native Blacks and is more favorable towards foreign born Blacks. This last hypothesis is certainly a possibility that deserves to be further explored.

Borjas, Grogger and Hanson (2006) explore the hypothesis that the recent wave of immigration has disproportionately affected the labor market outcomes of Blacks. While they do not distinguish between native and foreign-born Blacks, they estimate that an immigration induced increase in the supply of a particular skill group is associated with the same reduction in the wage of native Blacks and Whites in that skill group, but that the immigration effect in decreasing the employment rate and in increasing the incarceration rate is much stronger among Blacks than among Whites. These estimates suggest that immigration might have a direct effect on the labor market outcomes of natives. They do not, however, explain why that effect would be different across racial groups and stronger for Blacks. Furthermore, the vulnerability of native Blacks to the recent immigration wave might be one of the manifestations of their worsening labor market outcomes rather than one of its causes.

It is not possible with the available data set to determine whether the reversal of the native born advantage among Blacks is driven by unobservable or cultural traits among foreign born Blacks or among native Blacks or by the fact that racial discrimination would differently affect native Blacks compared to foreign born immigrants from the Caribbean and Africa. But, in any case, the results suggest that cultural factors play a significant role in racial differences.

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Figure 1: Labor force participation by race and immigration status. Males.

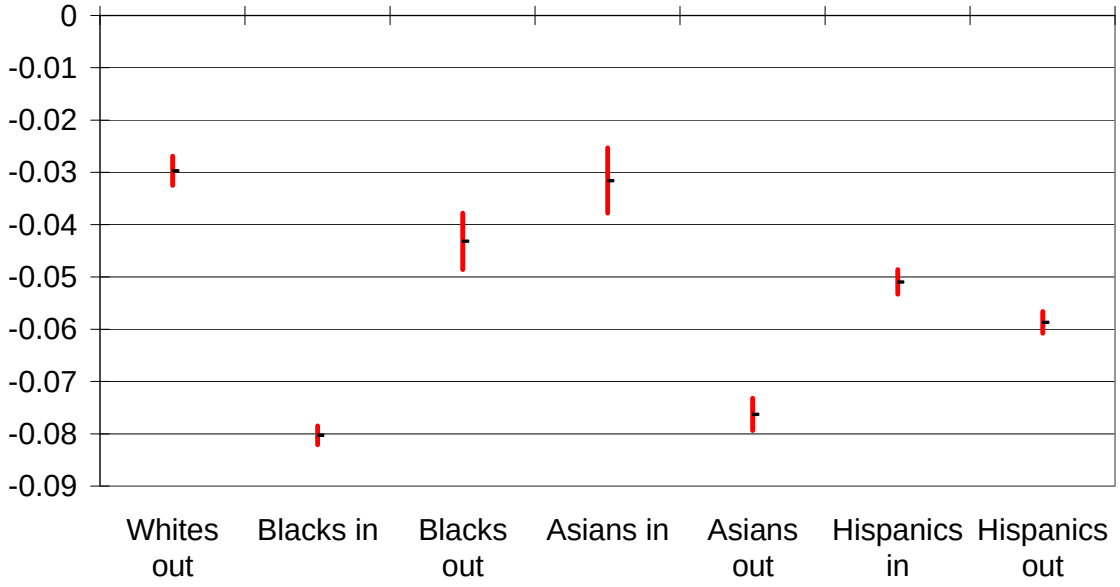
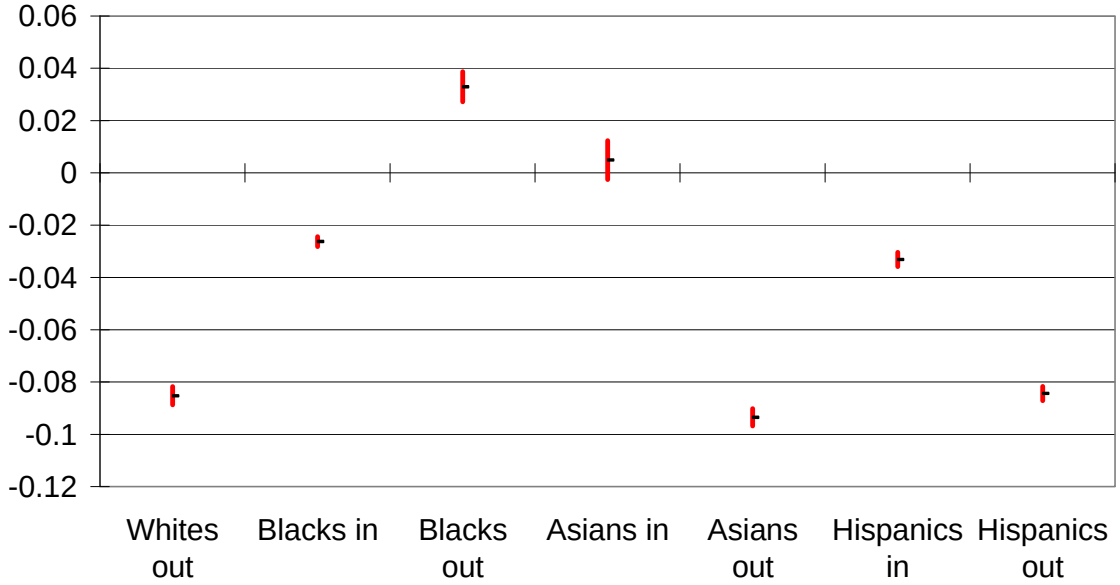


Figure 2: Labor force participation by race and immigration status. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups and foreign born status ("in" for natives, "out" for foreign born) in probit regressions with labor force participation as the dependent variable. "White natives" is the omitted dummy. The regression results are further detailed in table 2, columns 1 (males) and 5 (females).

Figure 3: Labor force participation, with interaction with citizenship. Males.

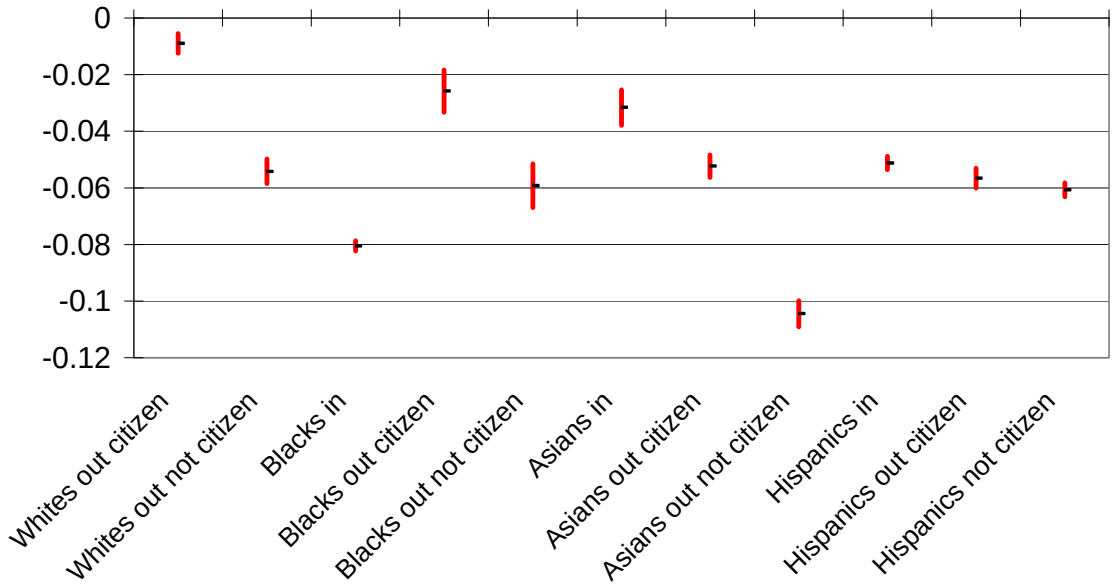
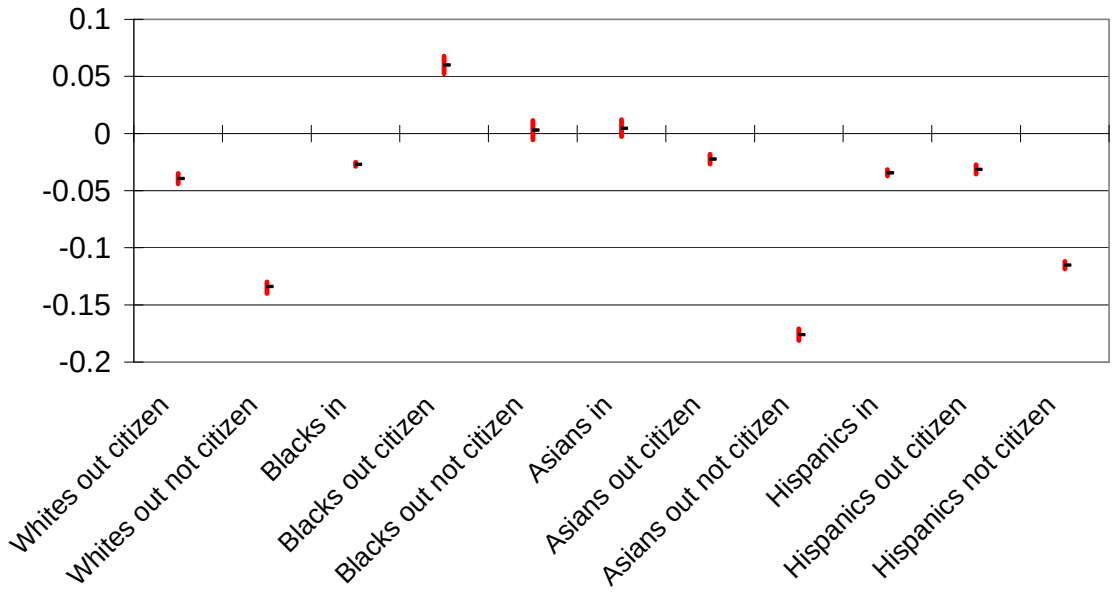


Figure 4: Labor force participation, with interaction with citizenship. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups, foreign born status ("in" for natives, "out" for foreign born) and citizenship status in probit regressions with labor force participation as the dependent variable. "White natives" is the omitted dummy. The regression results are further detailed in table A2, columns 1 (males) and 2 (females).

Figure 5: Labor force participation , with interaction for ability in English. Males.

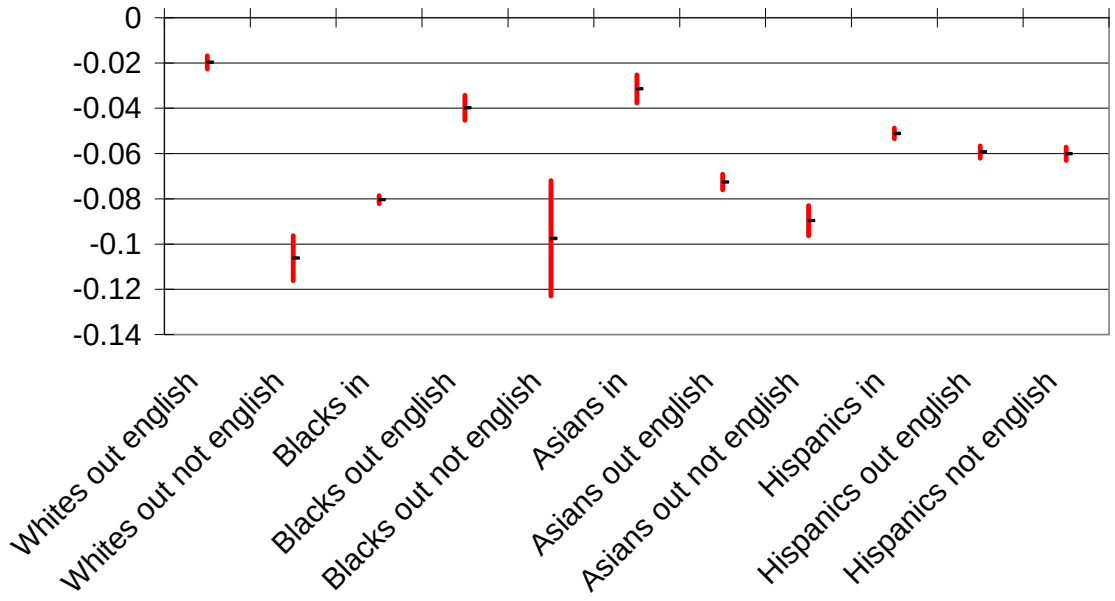
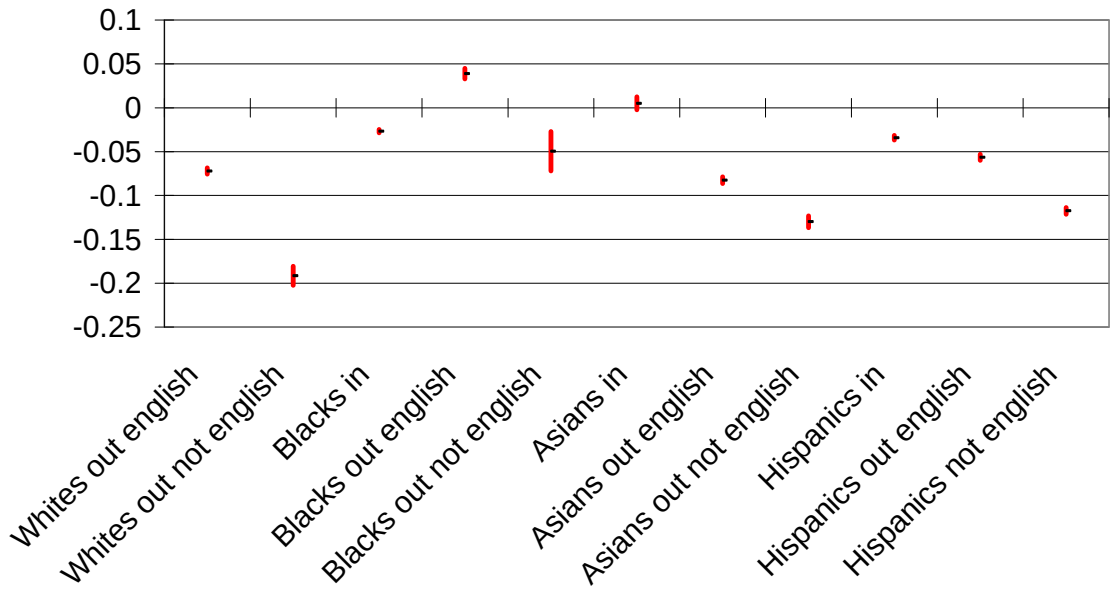


Figure 6: Labor force participation, with interaction for ability in English. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups, foreign born status ("in" for natives, "out" for foreign born) and ability in English in probit regressions with labor force participation as the dependent variable. "White natives" is the omitted dummy. The regression results are further detailed in table A2, columns 3 (males) and 4 (females).

Figure 7: Labor force participation, with interaction with age at arrival in the US. Males.

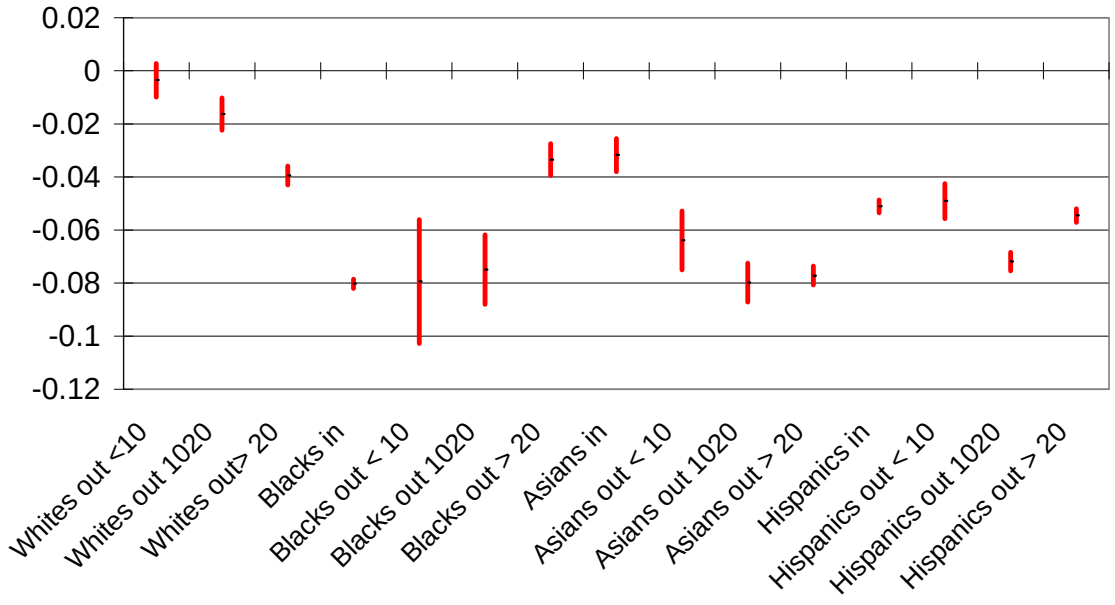
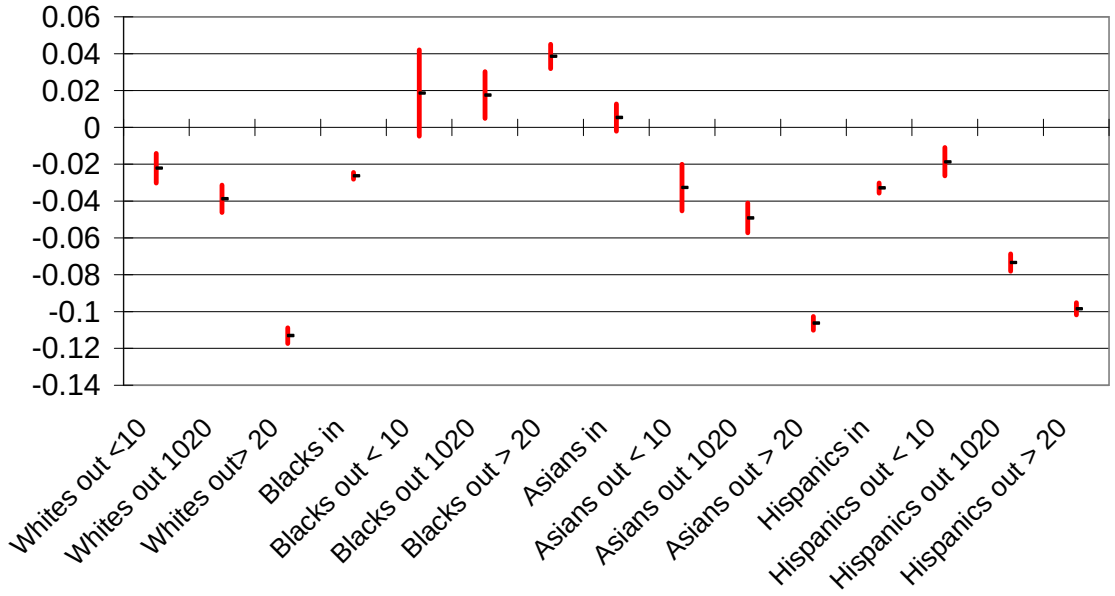


Figure 8: Labor force participation, with interaction with age at arrival in the US. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups, foreign born status ("in" for natives, "out" for foreign born; "<10" for arrived younger than 10, "1020" for arrived between 10 and 20, ">20" for arrived older than 20) and age at arrival in the US in probit regressions with labor force participation as the dependent variable. "White natives" is the omitted dummy. The regression results are further detailed in table A3.

Figure 9: Labor force participation, interacted with time since arrival in the US. Males.

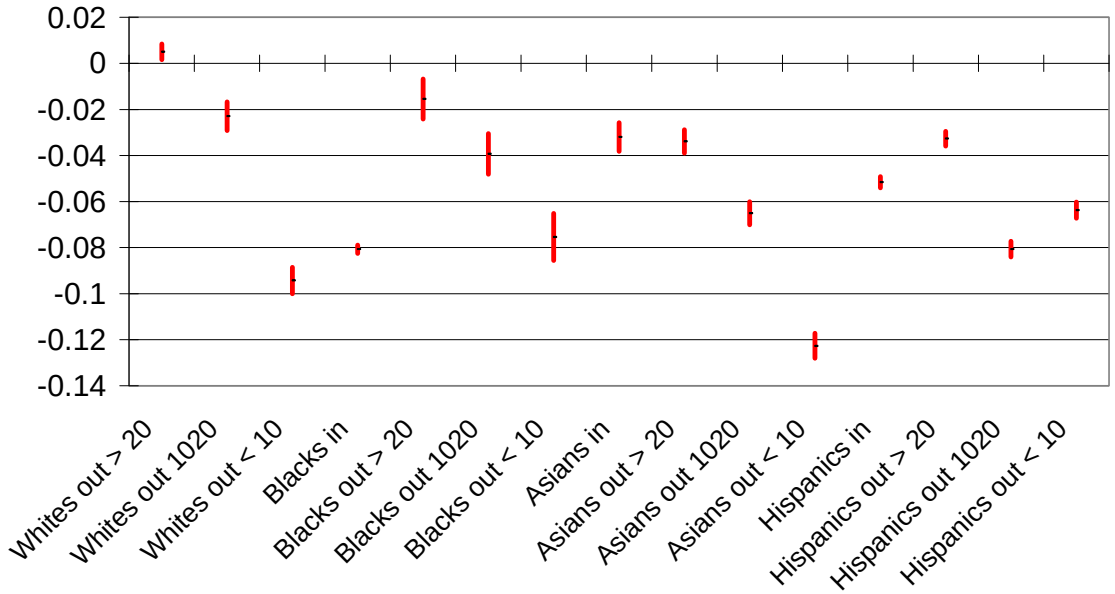
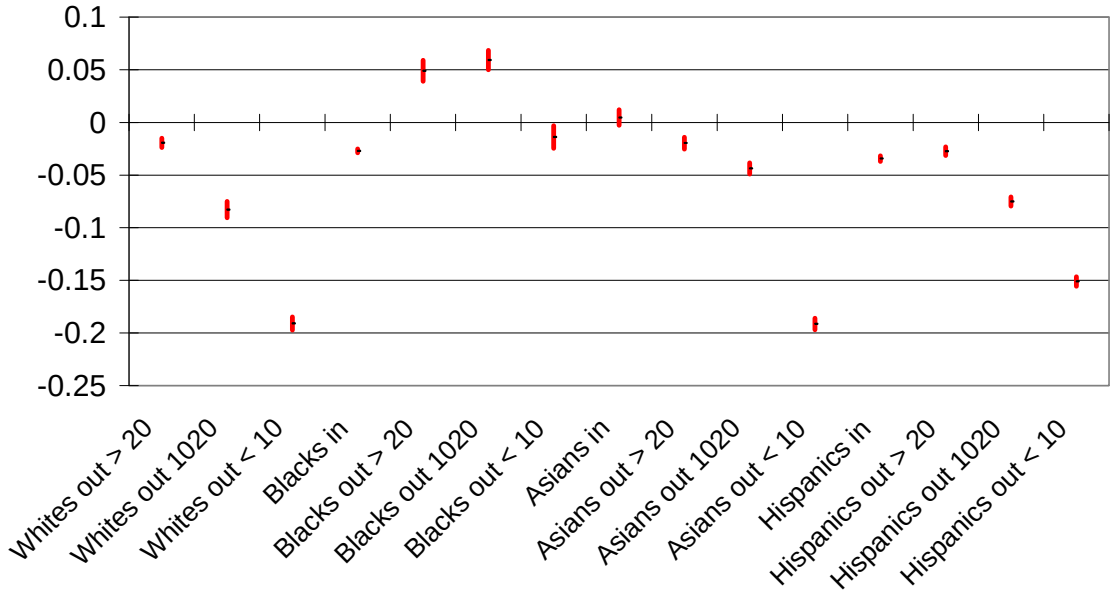


Figure 10: Labor force participation, interacted with time since arrival in the US. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups, foreign born status ("in" for natives, "out" for foreign born; "<20" for arrived more than 20 years ago, "1020" for arrived between 10 and 20 years ago, "<10" for arrived less than 10 years ago) and time since arrival in the US in probit regressions with labor force participation as the dependent variable. "White natives" is the omitted dummy. The regression results are further detailed in table A4.

Figure 11: Labor force participation controlling for race composition in the PUMA. Males.

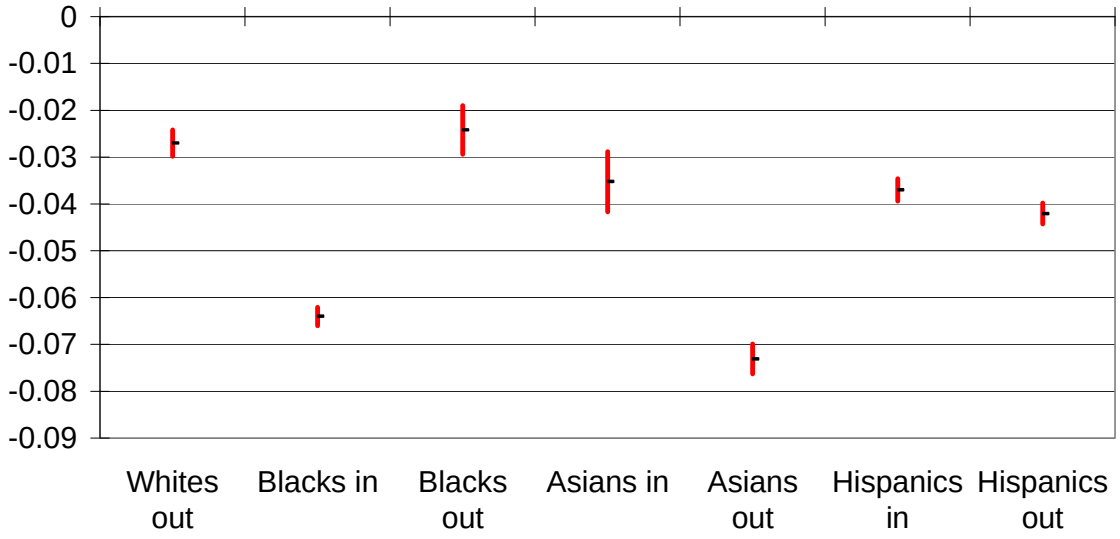
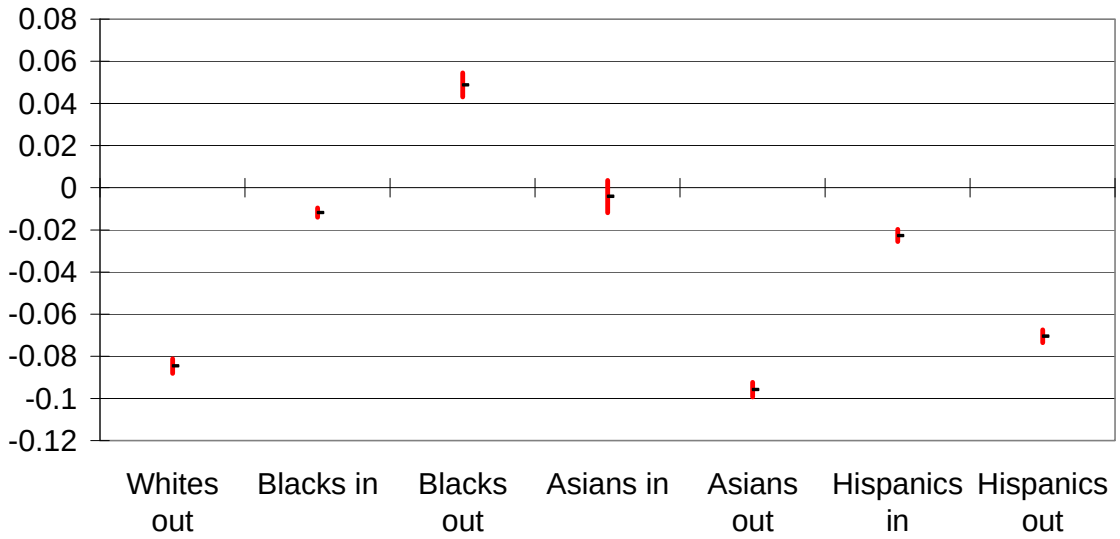


Figure 12: Labor Force Participation controlling for race composition in the PUMA. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups, foreign born status (in for natives, out for foreign born) and controlling for the race composition of the PUMA in probit regressions with labor force participation as the dependent variable. “White natives” is the omitted dummy. The regression results are further detailed in table A5.

Figure 13: Labor force participation (with cell's average at the PUMA level). Males.

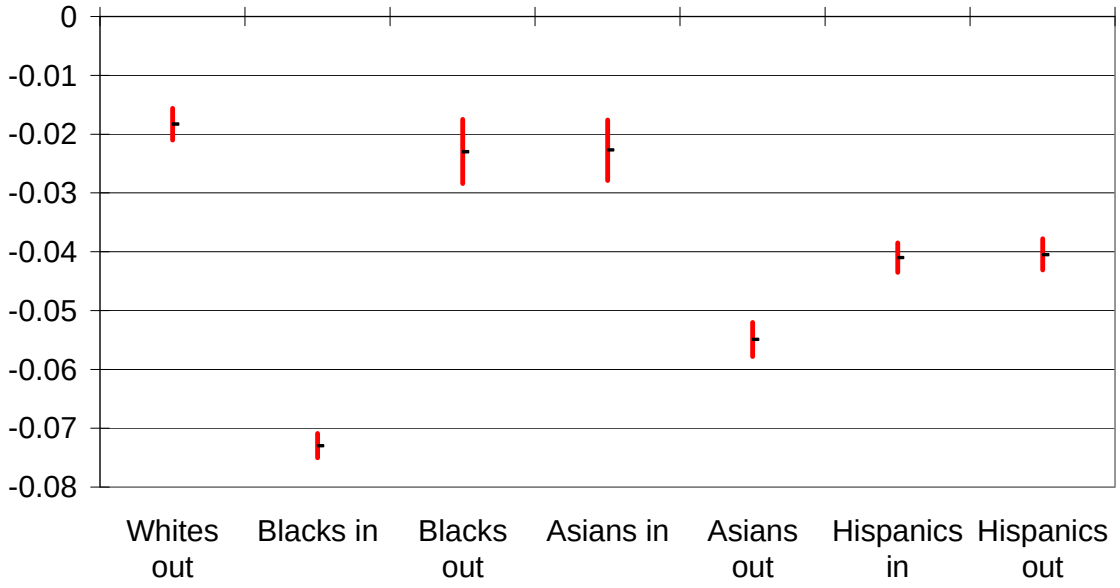
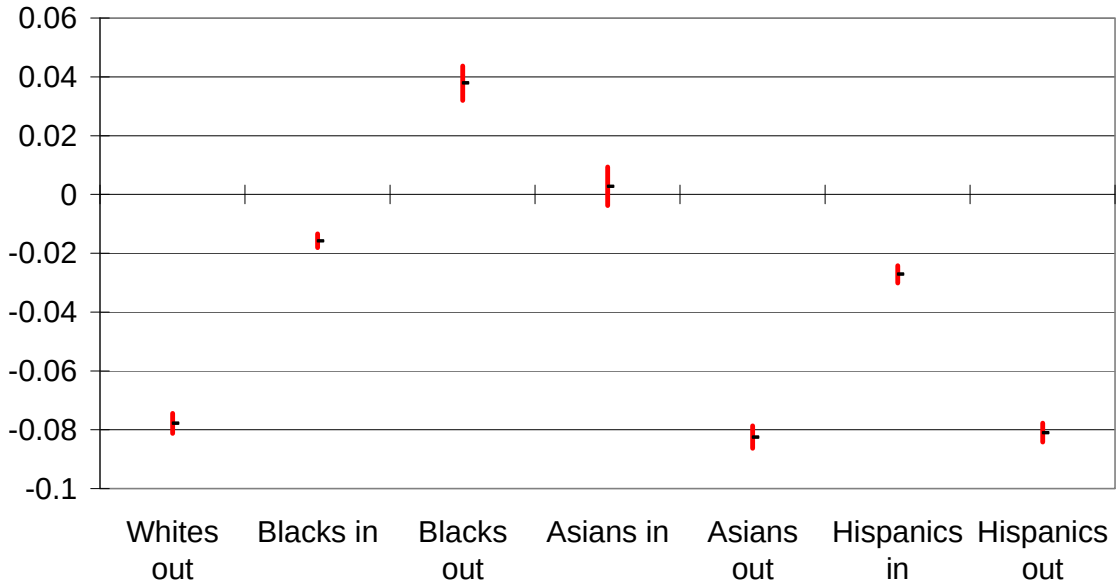


Figure 14: Labor force participation (with cell's average at the PUMA level). Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups, foreign born status (in for natives, out for foreign born) with labor force participation as the dependent variable. "White natives" is the omitted dummy. The unit of observation is a cell defined at the level of the PUMA for each combination of age group, racial/immigration group and education group. The regression results are further detailed in table A5.

Figure 15: Labor force participation by race, immigration status and region of origin for Blacks. Males.

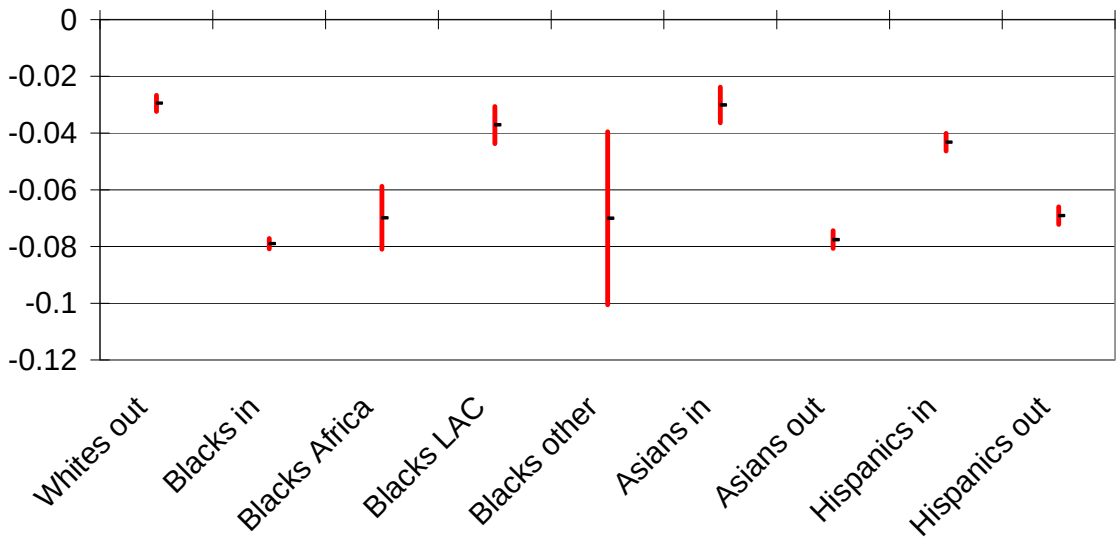
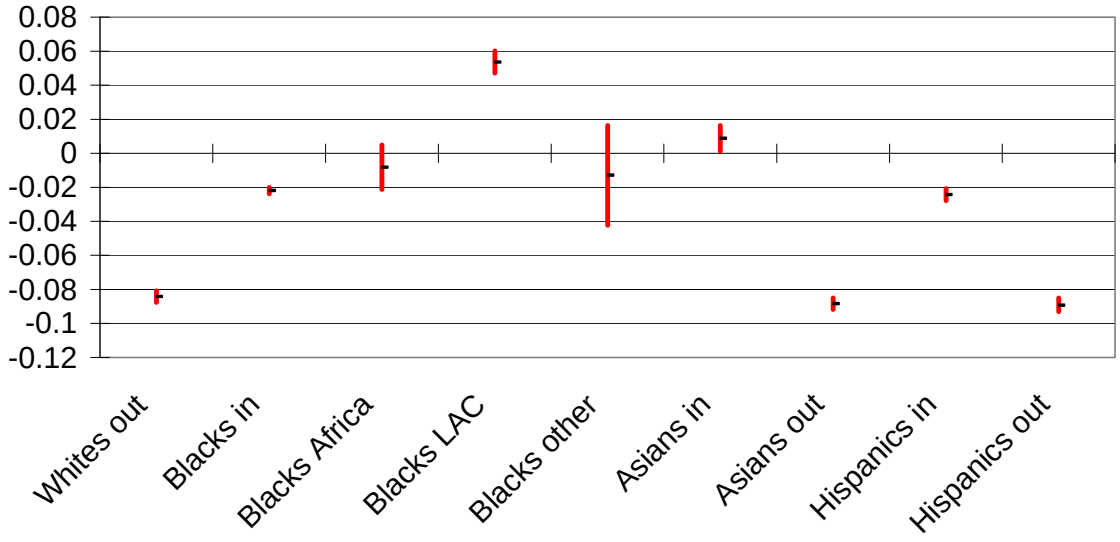


Figure 16: Labor force participation by race immigration status and region of origin for Blacks. Females.



Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The figures display the marginal coefficients and their 95% confidence intervals on interaction terms for racial groups and foreign born status ("in" for natives, "out" for foreign born) in probit regressions with labor force participation as the dependent variable. "White natives" is the omitted dummy. "Blacks Africa" includes Blacks born in Africa, "Blacks LAC" includes Blacks born in Latin America and the Caribbean and "Blacks other" those born elsewhere, but not in the United States.

Table 1: Descriptive statistics and sample composition								
Panel A: Sample composition (ages 25-65)								
	White native born	White foreign born	Black native born	Black foreign born	Asian native born	Asian foreign born	Hispanic native born	Hispanic foreign born
Males (n = 3,540,102)								
Percentage in sample	70.44	2.97	10.02	0.92	0.63	3.35	4.75	6.88
Males: Education distribution (percent)								
HS drop out	11.15	14.90	25.32	22.10	7.26	15.85	29.21	61.14
High School	28.78	19.78	33.67	23.35	16.38	13.61	28.90	17.57
Some college	29.72	22.65	28.48	27.42	29.97	20.14	28.45	13.23
College +	30.32	42.65	12.51	27.11	46.37	50.38	13.53	8.03
Females (n = 3,662,451)								
Percentage in sample	69.40	3.07	11.37	0.98	0.60	3.73	4.84	5.98
Females: Education distribution (percent)								
HS drop out	9.30	15.39	20.52	22.66	6.49	20.13	26.22	57.43
High School	29.63	24.40	30.11	25.37	16.49	16.69	28.19	18.85
Some college	32.58	27.50	33.28	30.38	29.34	20.63	31.01	15.02
College +	28.48	32.69	16.07	21.58	47.66	42.54	14.56	8.68
Panel B: Distribution among the foreign born in each race group, by characteristics								
	White foreign born		Black foreign born		Asian foreign born		Hispanic foreign born	
	Males	Females	Males	Females	Males	Females	Males	Females
Citizen	51.10	51.58	47.06	51.65	52.31	53.46	28.93	33.95
Non citizen	48.89	48.41	52.93	48.34	47.68	46.53	71.06	66.04
Good English	90.06	88.73	94.74	93.11	81.25	76.37	55.10	49.98
Not good English	9.93	11.26	5.25	6.88	18.74	23.62	44.89	50.01
Arrived < 10 year old	16.20	15.36	6.33	7.06	7.17	6.50	8.07	8.96
Arrived 10-20 year old	17.88	18.55	19.60	22.53	17.29	15.06	32.29	27.04
Arrived older than 20	65.90	66.08	74.06	70.39	75.53	78.43	59.62	63.98
Arrived < 10 years ago	33.74	32.16	33.61	32.78	37.69	38.63	34.05	35.10
Arrived 10-20 years ago	20.60	18.57	36.63	36.06	35.23	33.19	36.65	33.17
Arrived > 20 years ago	45.65	49.25	29.75	31.15	27.07	28.16	29.29	31.71

Data from the 2000 Census IPUMS data (5% sample), population aged 25-65.The estimations use the sampling weights provided with the IPUMS data.

Table 2: Labor force participation, employment and personal income by race and immigration status								
	Males				Females			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable	In the labor force	Employed	Employed if in the labor force	Total personal income	In the labor force	Employed	Employed if in the labor force	Total personal income
High School	0.0608***	0.0776***	0.0171***	6,236.07***	0.1335***	0.1512***	0.0228***	5,130.6***
	[0.0005]	[0.0006]	[0.0003]	[56.7445]	[0.0008]	[0.0008]	[0.0003]	[38.3908]
Some college	0.0957***	0.1216***	0.0269***	14,770.3***	0.2058***	0.2305***	0.0349***	11,508.6***
	[0.0005]	[0.0006]	[0.0003]	[63.8041]	[0.0007]	[0.0008]	[0.0003]	[41.1196]
College and above	0.1297***	0.1652***	0.0379***	44,862.1***	0.2458***	0.2784***	0.0459***	25,701.8***
	[0.0005]	[0.0005]	[0.0003]	[95.4901]	[0.0007]	[0.0007]	[0.0003]	[55.3683]
married	0.0757***	0.1123***	0.0422***	18,258.3***	-0.0452***	-0.0258***	0.0195***	-2,191.7***
	[0.0006]	[0.0007]	[0.0004]	[66.5728]	[0.0008]	[0.0008]	[0.0004]	[39.5270]
# of children <5	-0.0008	-0.0007	-0.0010***	669.9***	-0.1260***	-0.1270***	-0.0058***	-3,093.6***
	[0.0005]	[0.0006]	[0.0003]	[70.2157]	[0.0006]	[0.0007]	[0.0003]	[35.6303]
Income of other	-0.0011***	-0.0021***	-0.0011***	-1,041.8***	-0.0058***	-0.0056***	-0.0001	-541.0***
family members (log)	[0.0001]	[0.0001]	[0.0000]	[7.3638]	[0.0001]	[0.0001]	[0.0000]	[4.8397]
White born out US	-0.0297***	-0.0309***	-0.0031***	872.1***	-0.0853***	-0.0908***	-0.0143***	-2,183.9***
	[0.0014]	[0.0016]	[0.0008]	[224.2385]	[0.0017]	[0.0018]	[0.0010]	[109.5149]
Black born in US	-0.0803***	-0.1102***	-0.0357***	-8,572.7***	-0.0264***	-0.0523***	-0.0323***	-1,104.5***
	[0.0009]	[0.0010]	[0.0006]	[69.2448]	[0.0010]	[0.0010]	[0.0006]	[48.5472]
Black born out US	-0.0433***	-0.0586***	-0.0183***	-13,442.9***	0.0330***	0.0129***	-0.0229***	-296.1*
	[0.0028]	[0.0030]	[0.0016]	[240.8098]	[0.0029]	[0.0031]	[0.0017]	[158.7874]
Asian born in US	-0.0316***	-0.0359***	-0.0062***	-4,161.4***	0.0049	0.0010	-0.0061***	2,108.5***
	[0.0032]	[0.0034]	[0.0016]	[376.5460]	[0.0038]	[0.0039]	[0.0018]	[245.9250]
Asian born out US	-0.0763***	-0.0757***	-0.0034***	-11,657.9***	-0.0935***	-0.0955***	-0.0103***	-3,436.2***
	[0.0016]	[0.0017]	[0.0007]	[178.2455]	[0.0017]	[0.0017]	[0.0009]	[99.1524]
Hispanic born in US	-0.0510***	-0.0618***	-0.0129***	-6,285.6***	-0.0332***	-0.0445***	-0.0175***	-1,466.9***
	[0.0012]	[0.0013]	[0.0007]	[101.2371]	[0.0014]	[0.0014]	[0.0007]	[64.8036]
Hispanic born out US	-0.0588***	-0.0574***	-0.0012**	-8,689.7***	-0.0844***	-0.1061***	-0.0337***	-4,552.0***
	[0.0011]	[0.0012]	[0.0005]	[91.8478]	[0.0014]	[0.0014]	[0.0009]	[59.9742]
In school	-0.1108***	-0.1101***	-0.0077***	-10,315.2***	-0.0583***	-0.0584***	-0.0054***	-3,801.5***
	[0.0013]	[0.0014]	[0.0006]	[108.8127]	[0.0013]	[0.0013]	[0.0005]	[60.1506]
Disabled	-0.1176***	-0.1141***	-0.0002	-6,630.9***	-0.0608***	-0.0506***	0.0076***	-2,118.8***
	[0.0008]	[0.0008]	[0.0003]	[67.0244]	[0.0009]	[0.0009]	[0.0004]	[44.5958]
Inmate	n.a.	n.a.	n.a.	2,570.5***	n.a.	n.a.	n.a.	-6,723.2***
				[156.2458]				[187.8800]
Observations	3472846	3472846	2894608	3540102	3649194	3649194	2523412	3662451
R-squared	0.15	0.14	0.07	0.19	0.10	0.10	0.07	0.13

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%. Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. For labor force participation and employment, the probit regressions (marginal effects shown) also include 5 year age group dummies and region dummies. The regressions use the sampling weights provided with the IPUMS data. Being an inmate is also controlled for in the personal income regression, which is a linear regression. When entered in the labor force and employment probit regressions, the inmate dummy drops out as inmates are not in the labor force. This explains the slightly smaller sample sizes for those regressions, which, in effect, excludes inmates from the sample.

Table 3: region and country of birth of foreign born blacks

Caribbean and Latin America: 70.2%	**Africa: 25.15 %**	**Other: 4.65%**
Including:	**Including:**	**Including:**
Jamaica: 26%	Nigeria: 6.8%	UK: 1.5%
Haiti: 19.3%	Ghana: 3.4%	
Trinidad: 7.2%	Ethiopia: 3.0%	
Guyana: 4.7%	Liberia: 1.6%	
Barbados: 2.6%	Kenya: 1.1%	
Grenada: 1.3%	Africa, non specified: 4.12%	
Belize: 1.1%		
Bahamas: 1%		
West Indies, non specified: 1.16%		

Data from the 2000 Census IPUMS data (5% sample), population aged 25-65.The estimations use the sampling weights provided with the IPUMS data.

Table 4: Labor force participation, by race and immigration status, for each gender and education category separately								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Males				Females			
	Less than High School	High School	Some college	College and above	Less than High School	High School	Some college	College and above
Dependent variable	In the labor force	In the labor force	In the labor force	In the labor force	In the labor force	In the labor force	In the labor force	In the labor force
White born out US	0.0045	-0.0277***	-0.0338***	-0.0282***	-0.0208***	-0.0876***	-0.0890***	-0.0936***
	[0.0045]	[0.0033]	[0.0027]	[0.0016]	[0.0046]	[0.0035]	[0.0031]	[0.0027]
Black born in US	-0.1202***	-0.1028***	-0.0623***	-0.0316***	-0.0333***	-0.0508***	-0.0147***	0.0309***
	[0.0024]	[0.0017]	[0.0015]	[0.0017]	[0.0024]	[0.0019]	[0.0016]	[0.0019]
Black born out US	0.0082	-0.0588***	-0.0613***	-0.0427***	0.1113***	0.0199***	0.0051	0.0166***
	[0.0069]	[0.0062]	[0.0051]	[0.0042]	[0.0068]	[0.0061]	[0.0052]	[0.0054]
Asian born in US	-0.0538***	-0.0396***	-0.0211***	-0.0203***	0.0071	-0.0002	0.0175***	-0.0046
	[0.0161]	[0.0079]	[0.0050]	[0.0032]	[0.0158]	[0.0095]	[0.0060]	[0.0047]
Asian born out US	-0.0266***	-0.0578***	-0.0942***	-0.0604***	0.0165***	-0.0791***	-0.1058***	-0.1246***
	[0.0044]	[0.0041]	[0.0033]	[0.0017]	[0.0038]	[0.0040]	[0.0035]	[0.0024]
Hispanic born in US	-0.0704***	-0.0684***	-0.0386***	-0.0155***	-0.0586***	-0.0418***	-0.0111***	0.0115***
	[0.0030]	[0.0025]	[0.0021]	[0.0022]	[0.0030]	[0.0027]	[0.0023]	[0.0029]
Hispanic born out US	-0.0320***	-0.1111***	-0.0867***	-0.0822***	-0.0577***	-0.1310***	-0.0961***	-0.1284***
	[0.0020]	[0.0029]	[0.0028]	[0.0032]	[0.0022]	[0.0030]	[0.0032]	[0.0041]
Observations	593401	1003587	963513	912345	552861	1070422	1122287	903624

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%. Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The probit regressions (marginal effects shown) also include 5 year age group dummies and region dummies, as well as indicators for being married, disabled and in school, the number of children under age 5 in the household and the logarithm of total personal income earned by the other household members. “White natives” is the omitted dummy. The regressions use the sampling weights provided with the IPUMS data.

Table A1: Labor force participation, employment and personal income by race and immigration status, without controlling for other household members' income.								
	Males				Females			
Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	In the labor force	Employed	Employed if in the labor force	Total personal income	In the labor force	Employed	Employed if in the labor force	Total personal income
High School	0.0608***	0.0776***	0.0171***	6,232.8***	0.1329***	0.1506***	0.0228***	5,063.6***
	[0.0005]	[0.0006]	[0.0003]	[56.5453]	[0.0008]	[0.0008]	[0.0003]	[38.4264]
Some college	0.0958***	0.1218***	0.0271***	14,856.3***	0.2054***	0.2301***	0.0349***	11,481.7***
	[0.0005]	[0.0006]	[0.0003]	[63.8029]	[0.0007]	[0.0008]	[0.0003]	[41.1813]
College and above	0.1300***	0.1658***	0.0385***	45,267.9***	0.2453***	0.2780***	0.0459***	25,708.3***
	[0.0005]	[0.0005]	[0.0003]	[96.0449]	[0.0007]	[0.0007]	[0.0003]	[55.4982]
married	0.0704***	0.1014***	0.0353***	13,166.0***	-0.0791***	-0.0594***	0.0191***	-5,600.2***
	[0.0005]	[0.0006]	[0.0003]	[58.0380]	[0.0006]	[0.0006]	[0.0003]	[34.8494]
# of children <5	0.0010*	0.0028***	0.0009***	2,292.6***	-0.1229***	-0.1239***	-0.0058***	-2,799.5***
	[0.0005]	[0.0006]	[0.0003]	[69.5654]	[0.0006]	[0.0007]	[0.0003]	[35.5174]
White born out US	-0.0293***	-0.0301***	-0.0027***	1,356.4***	-0.0853***	-0.0908***	-0.0143***	-2,193.4***
	[0.0014]	[0.0015]	[0.0007]	[225.1324]	[0.0017]	[0.0018]	[0.0010]	[109.7468]
Black born in US	-0.0812***	-0.1118***	-0.0370***	-9,227.4***	-0.0246***	-0.0507***	-0.0322***	-1,009.3***
	[0.0009]	[0.0010]	[0.0006]	[69.4075]	[0.0010]	[0.0010]	[0.0006]	[48.5131]
Black born out US	-0.0438***	-0.0596***	-0.0193***	-13,880.5***	0.0321***	0.0119***	-0.0230***	-413.1***
	[0.0028]	[0.0030]	[0.0016]	[240.8464]	[0.0030]	[0.0031]	[0.0017]	[159.4340]
Asian born in US	-0.0326***	-0.0380***	-0.0074***	-4,961.6***	0.0022	-0.0017	-0.0061***	1,825.6***
	[0.0032]	[0.0034]	[0.0017]	[378.5470]	[0.0038]	[0.0039]	[0.0018]	[246.7892]
Asian born out US	-0.0769***	-0.0767***	-0.0043***	-11,813.5***	-0.0953***	-0.0973***	-0.0103***	-3,636.7***
	[0.0016]	[0.0017]	[0.0008]	[178.4946]	[0.0017]	[0.0017]	[0.0009]	[99.2909]
Hispanic born in US	-0.0516***	-0.0629***	-0.0138***	-6,707.3***	-0.0337***	-0.0450***	-0.0175***	-1,555.6***
	[0.0012]	[0.0013]	[0.0007]	[101.4020]	[0.0014]	[0.0014]	[0.0007]	[64.9583]
Hispanic born out US	-0.0592***	-0.0583***	-0.0021***	-9,019.9***	-0.0869***	-0.1086***	-0.0337***	-4,794.9***
	[0.0011]	[0.0011]	[0.0005]	[91.3994]	[0.0014]	[0.0014]	[0.0009]	[60.1450]
In school	-0.1109***	-0.1102***	-0.0078***	-10,454.9***	-0.0580***	-0.0581***	-0.0054***	-3,802.3***
	[0.0013]	[0.0014]	[0.0006]	[109.0988]	[0.0013]	[0.0013]	[0.0005]	[60.2946]
Disabled	-0.1174***	-0.1137***	0.0001	-6,489.1***	-0.0598***	-0.0497***	0.0076***	-2,053.3***
	[0.0008]	[0.0008]	[0.0003]	[67.1034]	[0.0009]	[0.0009]	[0.0004]	[44.6359]
Inmate	n.a.	n.a.	n.a.	-8,008.6***	n.a.	n.a.	n.a.	-12,343.4***
				[139.5883]				[182.6202]
Observations	3472846	3472846	2894608	3540102	3649194	3649194	2523412	3662451
R-squared	0.15	0.14	0.07	0.19	0.10	0.10	0.07	0.13

Robust standard errors in brackets * significant at 10%; ** significant at 5%; *** significant at 1%.

Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. For labor force participation and employment, the probit regressions (marginal effects shown) also include 5 year age group dummies and region dummies. The regressions use the sampling weights provided with the IPUMS data. Being an inmate is also controlled for in the personal income regression, which is a linear regression. When entered in the labor force and employment probit regressions, the inmate dummy drops out as inmates are not in the labor force. This explains the slightly smaller sample sizes for those regressions, which, in effect, excludes inmates from the sample.

Table A2 : Labor force participation by race, immigration status, citizenship and ability in English.					
	(1) Males	(2) Females		(3) Males	(4) Females
Dependent variable	In the labor force	In the labor force		In the labor force	In the labor force
White born out US, citizen	-0.0090***	-0.0395***	White born out US, good English	-0.0197***	-0.0723***
	[0.0018]	[0.0023]		[0.0015]	[0.0018]
White born out US, not citizen	-0.0542***	-0.1350***	White born out US, not good English	-0.1062***	-0.1915***
	[0.0022]	[0.0026]		[0.0050]	[0.0056]
Black born in US	-0.0805***	-0.0270***	Black born in US	-0.0804***	-0.0268***
	[0.0009]	[0.0010]		[0.0009]	[0.0010]
Black born out US, citizen	-0.0259***	0.0600***	Black born out US, good English	-0.0398***	0.0390***
	[0.0038]	[0.0039]		[0.0028]	[0.0031]
Black born out US, not citizen	-0.0593***	0.0029	Black born out US, not good English	-0.0975***	-0.0496***
	[0.0040]	[0.0044]		[0.0130]	[0.0115]
Asian born in US	-0.0317***	0.0047	Asian born in US	-0.0315***	0.0050
	[0.0032]	[0.0038]		[0.0032]	[0.0038]
Asian born out US, citizen	-0.0524***	-0.0225***	Asian born out US, good English	-0.0727***	-0.0826***
	[0.0020]	[0.0021]		[0.0018]	[0.0019]
Asian born out US, not citizen	-0.1045***	-0.1761***	Asian born out US, not good English	-0.0898***	-0.1300***
	[0.0024]	[0.0025]		[0.0034]	[0.0035]
Hispanic born in US	-0.0512***	-0.0344***	Hispanic born in US	-0.0512***	-0.0342***
	[0.0012]	[0.0014]		[0.0012]	[0.0014]
Hispanic born out US, citizen	-0.0567***	-0.0314***	Hispanic born out US, good English	-0.0594***	-0.0567***
	[0.0018]	[0.0021]		[0.0014]	[0.0018]
Hispanic born out US, not citizen	-0.0607***	-0.1153***	Hispanic born out US, not good English	-0.0601***	-0.1175***
	[0.0013]	[0.0017]		[0.0015]	[0.0019]
Observations	3472846	3649194		3472846	3649194
Pseudo R-squared	0.15	0.10		0.15	0.10

Robust standard errors in brackets * significant at 10%; ** significant at 5%; *** significant at 1%.
Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The probit regressions (marginal effects shown) also include 5 year age group dummies, region dummies, education (HS drop out, HS graduate, some college, college and above), indicators for being married, disabled and in school, the number of children under age 5 in the household and the logarithm of total personal income earned by the other household members.. The regressions use the sampling weights provided with the IPUMS data.

Table A3: Labor force participation by race, immigration status, and age at arrival in the US.		
	(1) Males	(2) Females
Dependent variable	In the labor force	In the labor force
White born outside the US, arrived younger than 10	-0.0035	-0.0222***
	[0.0033]	[0.0041]
White born outside the US, arrived between 10 and 20 years old	-0.0164***	-0.0388***
	[0.0031]	[0.0038]
White born outside the US, arrived older than 20	-0.0395***	-0.1131***
	[0.0018]	[0.0022]
Black born in US	-0.0803***	-0.0263***
	[0.0009]	[0.0010]
Black born outside the US, arrived younger than 10	-0.0795***	0.0187
	[0.0119]	[0.0119]
Black born outside the US, arrived between 10 and 20 years old	-0.0749***	0.0176***
	[0.0067]	[0.0065]
Black born outside the US, arrived older than 20	-0.0335***	0.0385***
	[0.0031]	[0.0034]
Asian born in US	-0.0318***	0.0053
	[0.0032]	[0.0038]
Asian born outside the US, arrived younger than 10	-0.0639***	-0.0328***
	[0.0057]	[0.0065]
Asian born outside the US, arrived between 10 and 20 years old	-0.0798***	-0.0492***
	[0.0037]	[0.0041]
Asian born outside the US, arrived older than 20	-0.0772***	-0.1064***
	[0.0018]	[0.0019]
Hispanic born in US	-0.0511***	-0.0330***
	[0.0012]	[0.0014]
Hispanic born outside the US, arrived younger than 10	-0.0491***	-0.0187***
	[0.0034]	[0.0039]
Hispanic born outside the US, arrived between 10 and 20 years old	-0.0719***	-0.0734***
	[0.0018]	[0.0024]
Hispanic born outside the US, arrived older than 20	-0.0546***	-0.0985***
	[0.0013]	[0.0017]
Observations	3472846	3649194
R-squared	0.15	0.10

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%.
Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The probit regressions (marginal effects shown) also include 5 year age group dummies, region dummies, education (HS drop out, HS graduate, some college, college and above), indicators for being married, disabled and in school, the number of children under age 5 in the household and the logarithm of total personal income earned by the other household members. The regressions use the sampling weights provided with the IPUMS data.

Table A4: Labor force participation by race, immigration status, and time since arrival in the US.		
	(1) Males	(2) Females
Dependent variable	In the labor force	In the labor force
White born outside the US, arrived less than 10 years ago	-0.0944***	-0.1911***
	[0.0029]	[0.0031]
White born outside the US, arrived between 10 and 20 years ago	-0.0230***	-0.0829***
	[0.0032]	[0.0040]
White born outside the US, arrived more than 20 years ago	0.0051***	-0.0195***
	[0.0017]	[0.0023]
Black born in US	-0.0808***	-0.0270***
	[0.0009]	[0.0010]
Black born outside the US, arrived less than 10 years ago	-0.0755***	-0.0139**
	[0.0052]	[0.0054]
Black born outside the US, arrived between 10 and 20 years ago	-0.0394***	0.0593***
	[0.0045]	[0.0047]
Black born outside the US, arrived more than 20 years ago	-0.0156***	0.0491***
	[0.0044]	[0.0051]
Asian born in US	-0.0320***	0.0046
	[0.0032]	[0.0038]
Asian born outside the US, arrived less than 10 years ago	-0.1227***	-0.1914***
	[0.0028]	[0.0028]
Asian born outside the US, arrived between 10 and 20 years ago	-0.0652***	-0.0438***
	[0.0026]	[0.0028]
Asian born outside the US, arrived more than 20 years ago	-0.0339***	-0.0198***
	[0.0026]	[0.0029]
Hispanic born in US	-0.0517***	-0.0343***
	[0.0012]	[0.0014]
Hispanic born outside the US, arrived less than 10 years ago	-0.0639***	-0.1512***
	[0.0018]	[0.0023]
Hispanic born outside the US, arrived between 10 and 20 years ago	-0.0807***	-0.0752***
	[0.0017]	[0.0022]
Hispanic born outside the US, arrived more than 20 years ago	-0.0328***	-0.0275***
	[0.0016]	[0.0021]
Observations	3472846	3649194
R-squared	0.15	0.10

Robust standard errors in brackets * significant at 10%; ** significant at 5%; *** significant at 1%.
Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The probit regressions (marginal effects shown) also include 5 year age group dummies, region dummies, education (HS drop out, HS graduate, some college, college and above), indicators for being married, disabled and in school, the number of children under age 5 in the household and the logarithm of total personal income earned by the other household members. The regressions use the sampling weights provided with the IPUMS data.

Table A5: Labor force participation by race, immigration status, controlling for the racial composition of the PUMA.		
	(1) Males	(2) Females
Dependent variable	In the labor force	In the labor force
White born out US	-0.0270***	-0.0847***
	[0.0014]	[0.0018]
Black born in US	-0.0641***	-0.0118***
	[0.0010]	[0.0011]
Black born out US	-0.0242***	0.0488***
	[0.0026]	[0.0029]
Asian born in US	-0.0353***	-0.0042
	[0.0033]	[0.0039]
Asian born out US	-0.0731***	-0.0958***
	[0.0016]	[0.0018]
Hispanic born in US	-0.0370***	-0.0227***
	[0.0012]	[0.0015]
Hispanic born out US	-0.0421***	-0.0706***
	[0.0011]	[0.0015]
Average white in PUMA	-0.0263***	-0.0677***
	[0.0037]	[0.0049]
Average black in PUMA	-0.0726***	-0.1200***
	[0.0040]	[0.0053]
Average Hispanic in PUMA	-0.0757***	-0.1129***
	[0.0040]	[0.0053]
Observations	3472846	3649194
Pseudo R-squared	0.15	0.10

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%. Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The probit regressions (marginal effects shown) also include 5 year age group dummies, region dummies, education (HS drop out, HS graduate, some college, college and above), indicators for being married, disabled and in school, the number of children under age 5 in the household and the logarithm of total personal income earned by the other household members. The regressions use the sampling weights provided with the IPUMS data.

Table A6: Labor force participation by race, immigration status, with PUMA fixed effects and cell (PUMA x race/immigration x education x age group) level averages.		
	(1) Males	(2) Females
Dependent variable	In the labor force	In the labor force
High School	0.0908***	0.1519***
	[0.0011]	[0.0012]
Some college	0.1333***	0.2320***
	[0.0011]	[0.0012]
College and above	0.1677***	0.2798***
	[0.0011]	[0.0013]
married	0.0821***	-0.0376***
	[0.0020]	[0.0027]
# of children <5	-0.0104***	-0.1440***
	[0.0016]	[0.0022]
Income of other family members (log)	0.0029***	-0.0019***
	[0.0002]	[0.0003]
disabled	-0.1374***	-0.0360***
	[0.0026]	[0.0031]
White born out US	-0.0183***	-0.0779***
	[0.0014]	[0.0017]
Black born in US	-0.0730***	-0.0158***
	[0.0011]	[0.0012]
Black born out US	-0.0230***	0.0379***
	[0.0028]	[0.0030]
Asian born in US	-0.0228***	0.0028
	[0.0026]	[0.0034]
Asian born out US	-0.0550***	-0.0826***
	[0.0015]	[0.0019]
Hispanic born in US	-0.0411***	-0.0272***
	[0.0013]	[0.0015]
Hispanic born out US	-0.0405***	-0.0810***
	[0.0013]	[0.0016]
In school	-0.1405***	-0.0611***
	[0.0034]	[0.0038]
Inmate	-0.7504***	-0.6338***
	[0.0033]	[0.0092]
Constant	0.7863***	0.7024***
	[0.0020]	[0.0026]
Observations	266666	271061
R-squared	0.63	0.55

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%.
Data from the 2000 Census IPUMS data (5% sample), population aged 25-65. The unit of observation is a cell defined at the level of the PUMA for each combination of age group, racial/immigration group and education group. The dependent variable of the linear regressions is the average labor participation in the cell. The regressors are indicators for each PUMA, education group, racial/immigration group and each group as well as the average at the cell level of the other X variables: marital status, number of children under age 5, the logarithm of income of other family members, disability, school enrollment and inmate status. The regressions use the sampling weights provided with the IPUMS data.